Periscope.

ANATOMY AND PHYSIOLOGY.

124. UNTERSUCHUNGEN ÜBER DIE ANATOMIE UND PATHOLOGIE DES UNTERSTEN RÜCKENMARKSABSCHNITTES (Investigations on the Anatomy and Pathology of the Lowest Portion of the Spinal Cord). L. R. Müller (Deutsche Zeitschrift für Nervenheilkunde, 14, 1898, 2, p. 1).

Müller has made a careful study of the anatomy and pathology of the conus in man. He gives a summary of his most important findings. The anterior roots are much less numerous than the posterior in the conus, and the large motor ganglion cells are absent from the anterior horns below the third sacral segment; instead of these, groups of multipolar ganglion cells are found in the intermediate gray matter between the anterior and posterior horns. Fibers radiate in the conus from the posterior columns into the gray matter, and the posterior gray commissure is absent below the second sacral segment. The crossed pyramidal tracts do not extend below the third sacral segment; below this level the lateral columns are filled with fibers of other origin. Numerous fibers from the ganglion cells in the intermediate gray matter of the conus pass into the posterior part of the lateral columns, and fibers from the lateral columns pass into the posterior roots. The histology of the conus differs essentially from that of the remainder of the cord. Spinal ganglia belonging to the posterior roots of the conus may occasionally be found *within* the dura, and the lowest posterior roots not infrequently contain isolated spinal-ganglion cells. The posterior columns disappear in the lower part of the conus before the other columns disappear, and the central canal becomes enlarged and occupies the area of the posterior columns. The posterior columns in the lower part of the cord contain mostly centrifugal fibers, but the oval field of the lumbar region, the dorso-medial sacral bundle, and the triangular zone, degenerate differently in descending degeneration of the posterior columns. Descending degeneration in the posterior columns of the lumbar and sacral regions occurs only after an almost complete transverse lesion, and seldom extends below the third sacral segment, and the triangular field remains almost always intact. Descending degeneration is never found in the lateral columns in the lower sacral region. The degeneration in the posterior columns of the conus in tabes and cauda-equina lesions is slight. One of Müller's cases shows that a primary acute inflammatory affection of the cauda may occur, and cause the same symptoms as conus lesions.

SPILLER.

125. ZUR ANATOMIE UND PHYSIOLOGIE DES UNTEREN SCHEITELLAPSCHENS (The Anatomy and Physiology of the Inferior Parietal Lobes). C. von Monakow (Archiv f. Psychiatrie, Vol. 31, 1898-99, p. 1).

This is a paper of some seventy pages, and presents the author's preliminary contribution to the subject of the localization of the function of the gyrus angularis and the gyrus supramarginalis, with the anatomy of these parts of the parietal lobes. A number of observations on fetal brains and on experimental work with monkeys' brains are recorded, which admit of abstracting only with difficulty. With respect to the anatomy of these two portions of the brain the author states that as early as the fourth month (3½) it is evident that fibers arise in these two lobes which contribute to the formation of the corona radiata, the evidence for this being, in the author's opinion, even stronger than it is for the occipital lobes, *i. e.* the optic radiations. At this stage fibers are to be traced from the temporal lobes also. In his investigations on monkeys he was unable to actually demonstrate the relationship of these lobes to the corpora quadrigemina, but in some pathological human material he shows that destruction of the gyrus angularis leads to a degeneration of the anterior corpus quadrigeminum of the same side, and in a similar manner destruction of the anterior corpora guadrigeminal regions results in an ascending degeneration to the gyrus angularis. From one of these pathological cases it seemed evident that, following a hemorrhagic destruction of the pulvinar, seven months old, the dorso-lateral part of the lateral geminal nucleus, as well as the posterior parts of the central nuclei groups, a secondary degeneration could be traced through the posterior internal capsule and extended in part through the optic radiations to the inferior parietal lobes. The continuation of the paper has not yet appeared. JELLIFFE.

CLINICAL NEUROLOGY.

126. ZUR AETIOLOGIE DER ACUTEN POLIOMYELITIS (On the Etiology of Acute Poliomyelitis). Schultze (Münchener medicinische Wochenschrift, 1898, No. 38, S. 1197).

As a contribution to this question, the author reports the following: A boy of 5 years was taken ill with fever and slight vomiting, and two days later showed a paralysis of both arms and weakness of the neck muscles. Five days later he was free from fever, and on examination showed flaccid paralysis of both arms and of the neck muscles, with patellar and ankle reflexes lost on the left and weak on the right; both arm reflexes lost, other reflexes normal. There was no stiffness of the neck or back, and no hyperesthesia, although there was slight pain on pressure over the cervical spines. There was some somnolence for several days, but never coma. A lumbar puncture made 13 days after the beginning of the attack caused the escape under a pressure of from 500 mm. at the start to 200 mm. at the finish of 30 c.c. of a clear fluid containing at the end a few flocculi. The bacteriological examination of this fluid showed the presence of a diplococcus having all the morphological characters of the Weichselbaum-Jäger meningococcus, but no growth could be obtained in glycerine agar. The child improved, and was discharged from the hospital after about three months. At this time there was extensive atrophic paralysis of both upper arms. Re-examination eleven months later showed that the condition remained unchanged.

The author thinks that the case presents the clinical picture of an acute poliomyelitis, and not that of cerebro-spinal meningitis, since the characteristic symptoms of this disease were entirely absent, the only ones suggesting it being the somnolence, pain in the neck, and slight stiffness in the legs. He suggests that the infectious agent may distribute itself, on the one hand, in areas contiguous to the vessels in the meninges, and on the other, along the course of the anterior central artery of the cord. According to whether the meninges and nerve roots are chiefly affected, or whether the more central portions of the brain and cord are the main seats of the process, we get the picture of